

REMARKS

The above-captioned application is a divisional of United States Application Serial No. 08/978,289, filed November 25, 1997, now U.S. Patent No. 6,361,939, which claims priority from Provisional U.S. Patent Application Numbers 60/031,806, filed November 27, 1996, and 60/032,767, filed December 11, 1996.

Claims 20-27 are pending. Claims 1-19 were previously canceled. Claims 20-27 stand rejected.

Rejections under 35 U.S.C. §§ 101 and 112, first paragraph

Claims 20-27 stand rejected under 35 U.S.C. § 101 as lacking either a specific and substantial asserted utility or a well established utility. In addition, claims 20-27 stand rejected under 35 U.S.C. § 112, first paragraph, for lack of enablement.

Applicants respectfully disagree. The claimed polynucleotides may be used as markers for dendritic cells and/or dendritic cell precursors. For example, page 79, lines 3-4 of applicants' specification discloses the dendritic cell-specific expression of A07C03. Therefore, these polynucleotides may be used as markers for dendritic cells. Dendritic cells are specialized antigen-presenting cells that efficiently process and present antigens to, for example, T cells. Even though the specification also indicates at page 79, lines 4-11 that some signal may be seen in dendritic cells and monocytes, monocytes are dendritic cell precursors. Therefore, the claimed polynucleotides may be used as markers for dendritic cells and dendritic cell precursors. In conclusion, applicants submit that claims 20-27 satisfy the requirements of 35 U.S.C. § 101. For the reasons stated above, applicants also submit that claims 20-27 satisfy the requirements of 35 U.S.C. § 112, first paragraph. Accordingly, withdrawal of the rejections under 35 U.S.C. §§ 101 and 112, first paragraph are respectfully requested.

Applicants note that there has been some confusion in the prosecution history regarding the cell types in which A07C03 is expressed. Page 79, lines 3-11 of the specification discloses the dendritic cell-specific expression of A07C03. On the other hand, page 77, lines 1-29 of the specification discloses the cellular expression for A05F12, which is also called diubiquitin. Diubiquitin is a separate and distinct molecule from A07C03. In fact, the specification discloses three molecules: A05F12 (diubiquitin), A07C03 (Ig family gene), and E02B02 (LAMP-like gene).

New Matter Rejection

Claims 20 and 21 stand rejected for the introduction of new matter. Applicants respectfully disagree.

Claim 20 recites an isolated or recombinant polynucleotide encoding a polypeptide comprising amino acids 1-219 of SEQ ID NO: 8. Applicants submit that support for claim 20 can be found in the specification. For example, page 4, line 15 and original claim 3c (page 109) of the specification state that an embodiment of A07C03 comprises a mature sequence of Table 2. A person having ordinary skill in the art knows that a mature polypeptide does not contain a signal sequence. The legend to Table 2 (lines 4-5) on page 22 of applicants' specification, which relates to A07C03, states that a signal sequence runs from amino acid residue -22 (Met) to amino acid residue -1 (Val). Therefore, the mature A07C03 polypeptide starts at amino acid residue 1 (Gly) and ends at amino acid residue 219 (Pro).

Claim 21 recites the polynucleotide of claim 20 comprising nucleotides 111-767 of SEQ ID NO: 7. Applicants submit that support for claim 21 can be found, for example, in SEQ ID NO: 7 of the sequence listing (pages 95-96 of the specification). Specifically, the second occurrence of "FEATURE" in the legend to SEQ ID NO: 7 states that the mature sequence is located from nucleotides 111 to 767.

Therefore, applicants submit that the specification provides adequate written description for both claims 20 and 21, and that the phrases "comprising amino acids 1-219" and "comprising nucleotides 111-767" do not constitute new matter. Accordingly, withdrawal of the new matter rejection is respectfully requested.

CONCLUSION

Applicants submit that claims 20-27 have utility and are enabled. In addition, applicants submit that claims 20 and 21 do not add new matter. Accordingly, reconsideration of the rejections and allowance of the claims at an early date are earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

Respectfully submitted,



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